Creating an Independent International Medical Physics Board

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Abstract— A basic structure of an International Medical Physics Credentialing System is presented. The work is the result of the combined efforts of the IBMP Constituting Panel (Panel) established by the American College of Medical Physics, and the IMPB Task Group (TG) appointed by the Professional Relations Committee of the IOMP. Background information related to the formation of the Panel is described. The intended positive impacts on the quality of medical physics practice are projected. To achieve the projected impacts, appropriate infrastructure needs to be established, and some of the anticipated challenges overcome. Future international collaboration efforts are proposed to help produce the desirable results.

Keywords— quality, certification, credentialing, education, training.

I. BACKGROUND

The medical physics profession is a young one relative to most of the occupations classified by the International Labor Organization (ILO) and by the job classification systems of many countries. The levels of recognition among professionals in many countries are determined by the classification systems. While many medical physicists working in academic environments may find it easier to achieve the level of recognition consistent with the skill and knowledge required by a medical physicist, others working in non-academic environments may find it less so. The latter employers often regard medical physicists as technicians and afford few professional opportunities to keep current their professional knowledge. As a result, in many countries there is a shortage of clinically qualified medical physicists. At many international meetings of medical physicists, such problems and potential resolutions have drawn attention.

On May 6, 2008, the American College of Medical Physics (ACMP) and the American Association of Physicists in Medicine (AAPM) co-sponsored an International Medical Physicists Symposium during the ACMP Annual Meeting in Seattle, Washington. The goal of the Symposium was to explore means of improving the quality of medical physics professional practice. Based on submitted presentations, the title of the Symposium was chosen as “Certification of Experienced Clinical Medical Physicists - an International Cooperative Effort”\textsuperscript{[1]}.

Subsequent to the ACMP Annual Meeting, some participants of the International Medical Physicists Symposium requested the ACMP to explore the possibility of assisting with the formation of an International Certification Board since ACMP was the original sponsor of the American Board of Medical Physics. In January 2009, the IBMP Constituting Panel (Panel) was created by the ACMP Board of Chancellors. One of the authors (ESS) was appointed Chair.

II. IBMP CONSTITUTING PANEL

A. Namesake and Primary Responsibility

The acronym of International Board of Medical Physics (IBMP) was chosen as the name of the Constituting Panel. The primary responsibilities of the Panel would be to consider and formulate guidelines which might lead to the establishment of a new international credentialing body for medical physicists offering peer certification in the physical aspects of radiation oncology, diagnostic radiology and nuclear medicine. The credentialing body itself, after it is created, may choose to select an organizational title that differs from “International Board of Medical Physics”.

B. Specific Objectives

The specific objectives of the Constituting Panel are:

- To review the need for a standardized medical physics certification process in countries and regions throughout the world where certification opportunities do not currently exist
- To develop international standards and procedures for a certification process
- To establish qualification guidelines for candidates requesting examination for certification
- To provide guidance in arranging, controlling and conducting examinations to test the competence of candidates for certification
- To consider the administrative, logistical, and financial requiremements for implementing the IBMP certification processes
- The Constituting Panel will not be involved with
setting up and operating the IBMP.

At the time this article was written, all U.S. and Canadian members of the Constituting Panel were Board-Certified, senior-ranked, and with recognized expertise with certification practices. Other members were executive committee – level officers from international medical physics organizations, or national medical physics organizations of the most populated countries. Accomplishments to-date of the Constituting Panel will be presented at the World Congress 2009 meeting.

III. IOMP TASK GROUP

To carry out the work of creating the international credentialing body, an international organization of medical physics such as IOMP will be required. Some participants of the Seattle meeting suggested that the IOMP Professional Relations Committee (PRC) should take the lead. In the later part of 2008, the PRC, chaired by one of the authors (KYC), proposed and was accepted by the Executive committee of IOMP that it officially establish a task group (TG) to take on issues related to creating the international credentialing body, and make recommendations. One of the authors (RKW) was appointed to chair the Task Group.

At the time of this writing, the Task Group is being formed. To promote synergy, the three authors of this article are members of both the Panel and the TG. Other members will be from countries that intend to use the services provided by the IBMP when it is established. These countries are to be considered charter members and their representatives involved with active decision-making from the outset to ensure its success.

IV. PROJECTED IMPACT

The creation of an international credentialing body is expected to encourage medical physicists to remain in the profession longer because the certification process will require a defined number of years of education and on-the-job training. Continuing education requirements following certification will promote further learning. The existence of an internationally recognized methodology for hospital employers to distinguish medical physicists meeting certain standards from other less qualified physicists will facilitate reasoned employment decisions. Further adoption of such preferable hiring practices should encourage more medical physicists to seek certification. Given time, it is anticipated that the quality of medical physics practice will improve significantly.

V. INFRASTRUCTURE

Countries with the resources to establish their own board certification processes should be encouraged to seek accreditation from the IBMP. Other countries may desire IBMP to register candidates and set up examinations to directly award the certificates. All national medical physics organizations will be encouraged to join forces in support of the IBMP examination process to ensure sustainable viability of the Board.

To maintain the quality of continuing education programs, an internationally recognized accreditation body may be important. In North America, the Commission on Accreditation of Medical Physics Education Programs (CAMPEP) is performing this function.

VI. CHALLENGES

To create an international credentialing body and to develop a set of universally acceptable guidelines are very challenging endeavors. Many developed countries might prefer adherence to the Subsidiarity Principle, which stipulates that a central authority should perform only those tasks which cannot be performed by the local authority. The IBMP should operate in a manner consistent with this principle. Other challenges include the need for qualified individuals to create examination questions, maintain confidentiality, raise adequate funding, and undertake additional responsibilities yet to be defined.

VII. CONCLUSIONS

We have described the goals and long term positive impacts expected of an international credentialing system. The Constituting Panel is already in existence, and the Task Group is being assembled. While the Panel is doing its initial work, national medical physicist organizations will have an opportunity to discuss whether they desire to join the TG as charter members. It is important that the concept of the international board be brought to the attention of all these organizations. At the same time, we need to publicize the fact that the driving force behind these activities is energized by the desire to improve the quality of international medical physics practice. Much effort will be required, but we anticipate that the outcome will prove it to be worthwhile.

REFERENCE

1. American College of Medical Physics Annual Meeting 2008 at http://www.aapm.org/meetings/08ACMP